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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
BRIER, JEFFERY A

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 05/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/691,121	DRESEVIC ET AL.
	Examiner	Art Unit	
	Jeffery A Brier	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 December 2003</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>2-21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>2-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>1/24/05</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Response to Amendment

1.   The preliminary amendment filed on 12/04/2003 has been entered.

Double Patenting

2.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3.   Claims 2-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 14, 15, 40, and 41 of U.S. Patent No. 6,674,436. Although the conflicting claims are not identical, they are not patentably distinct from each other. When comparing claim 2 of this application and patented claim 14 it is clear applicant has broadened claim 2 with regard to patented claim 14. Patented claim 14 added to patented claim 1 the storing of user gamma preference. Applicant is attempting to broaden the patented claim by deleting from the claim other stored user preferences.   The claims in the pending application may be used against the infringer of the patent's claim 14 (+all the limitations of claim 1)

because to perform infrigement of a comprising claim the accused infringer needs to at

least perform the recited claim limitations and may perform additional unclaimed

limitations. Thus, the grant of this claim without a terminal disclaimer will allow possible

harassment by multiple assignees. Also the claims of this application are broader than

the patented claim and in following the teaching in *In re Vogel*, 422 F.2d 438, 164

USPQ 619 (CCPA 1970) this broader claim is obvious type double patenting which may

be overcome by a terminal disclaimer. A comparison of claim 2 follows.

Claim 2 of this application 10/691,121	Claims 1+14 of US Patent 6,674,436
2. In a computer system including a processing unit and a display device, wherein the perceived quality of an image displayed on the display device may be affected by a variety of factors including a user's ability to perceive the displayed image, and wherein the user's ability to perceive tends to vary from one user to another,	1. In a computer system including a processing unit and a display device having a plurality of pixels, wherein the perceived quality of an image displayed on the display device may be affected by a variety of factors including i) physical attributes of the display device, for example type of display device, white point, pixel pattern, and/or method of light modulation, and ii) a user's ability to perceive the displayed image, for example human color sensitivity and/or viewing angle, and wherein the physical attributes tend to vary from one display device to another and the user's ability to perceive tends to vary front one user to another,
a method of increasing the perceived quality of a displayed image by compensating for the user's ability to	a method of increasing the perceived quality of a displayed image by compensating for at least one physical

perceive, the method comprising the steps for:	attribute of a display device and user profile information, the method comprising the steps for:
	storing information about the at least one physical attribute of said display device, wherein the step for storing the at least one physical attribute of said display device includes the act of storing display type information, the display type information indicating whether the display is a liquid crystal display, a cathode ray tube display or another type of display;
	storing user profile information about at least one user's ability to perceive a displayed image on said display device;
	using the stored physical attribute and user profile information to define at least one display device parameter;
	when processing a representation of an image to be displayed on said display device, using the display device parameter to alter the output of one or more pixels of said display device in order to increase the perceived quality of the resulting image when displayed on the display device; and
	displaying the processed image on said display device.
	14. The method of claim 1, further comprising the steps for:
storing user profile information about at least one user's ability to perceive a displayed image on said display device, the user profile information including information about a user gamma value preference; when processing a representation of an image to be displayed on said display device,	storing information about a user gamma value preference; and

performing a gamma value correction operation on the data representing the image to be displayed using the stored user gamma value preference information; and displaying the processed image on said display device.	performing a gamma value correction operation on the data representing the image to be displayed using the stored user gamma value preference information.

Claim 3:

This claim claims a method in accordance with claim 2, wherein the user profile information further includes at least one of a user gamut value preference and a user white point preference value. Patented claim 8 claims the display method of claim 1, wherein the step for storing information about at least one physical attribute of said display device includes the act of: storing information about a physical attribute of the display device from the group of attribute information consisting of: gamma information, gamut information and white point information. Since patented claim 8 depends upon claim 1 rather then patented claim 14 then there is a difference in scope between pending claim 3 and patented claim 8. In view of patented claim 8 it would have been obvious to one of ordinary skill in the art to add to patented claim 14 patented claim 8 since this would have made for a more complete user preference.

Claim 4:

This claim claims a method in accordance with claim 2, further comprising the step for: periodically updating the stored user profile information. Patented claim 11 claims the method of claim 10, further comprising the step for: periodically updating said stored attribute information. Since patented claim 11 depends upon claim 10

rather then patented claim 14 then there is a difference in scope between pending claim 4 and patented claim 11. In view of patented claim 11 it would have been obvious to one of ordinary skill in the art to add to patented claim 14 patented claim 11 since this would have made for a more complete user preference.

Claim 5:

This claim claims a method in accordance with claim 4, further comprising the step for: using the display device to test the at least one user's ability to perceive, where the step for periodically updating the stored user profile information is performed based on the test. Patented claim 1 claims "ii) a user's ability to perceive the displayed image, for example human color sensitivity and/or viewing angle" and "storing user profile information about at least one user's ability to perceive a displayed image on said display device". In view of patented claim 1 it would have been obvious to one of ordinary skill in the art to test the user by using the display device in order to acquire the stored user profile information about at least one user's ability to perceive a displayed image on said display device since a test is necessary for the stored user profile to exist.

Claim 6:

This claim claims a method in accordance with claim 2, further comprising the step for: using the display device to test the at least one user's ability to perceive, where the user profile information is based on the test. Patented claim 1 claims "ii) a user's ability to perceive the displayed image, for example human color sensitivity and/or

viewing angle" and "storing user profile information about at least one user's ability to

perceive a displayed image on said display device". In view of patented claim 1 it would

have been obvious to one of ordinary skill in the art to test the user by using the display

device in order to acquire the stored user profile information about at least one user's

ability to perceive a displayed image on said display device since a test is necessary for

the stored user profile to exist.

Claim 7:

This claim claims a method in accordance with claim 2, wherein the user profile

information further includes information about a user's ability to perceive color versus

resolution when performing scan conversion for each sub-component of a pixel, wherein

the step for processing a representation of an image further comprises the step for:

performing a filtering operation on the data representing the image to be displayed

using said stored information about a user's ability to perceive color versus resolution.

Patented claim 1 claims "ii) a user's ability to perceive the displayed image, for example

human color sensitivity and/or viewing angle" and "performing a color filtering operation

on the data representing the image to be displayed using said stored information about

a user's ability to perceive color." Patented claim 15 claims the method of claim 1,

further comprising the steps for: storing information about a user's ability to perceive

color; and performing a color filtering operation on the data representing the image to be

displayed using said stored information about a user's ability to perceive color. In view

of patented claims 1 and 15 it would have been obvious to one of ordinary skill in the art

for the user profile information to further include information about a user's ability to

perceive color versus resolution since it already claimed to include color sensitivity and since from a display device perspective color resolution and image resolution are inversely proportional it is necessary to know the user preference color resolution or image resolution to accommodate this real world tradeoff.

Claim 8:

Claim 8 of this application corresponds to patented claim 40. For the rational given above for claim 2 this claim would have been obvious to one of ordinary skill in the art.

Claim 9:

This claim claims a computer program product in accordance with claim 8, wherein the one or more computer-readable media are physical memory media. There is not directly corresponding patented claim, however, physical memory media is one of the ways the patented computer program product is embodied, thus, it would have been obvious to one of ordinary skill in the art to claim the computer program product of patented claim 40 would be embodied in a physical memory media.

Claim 10:

Claim 10 of this application corresponds to patented claim 37. For the rational given above for claim 4 this claim would have been obvious to one of ordinary skill in the art.

Claim 11:

Claim 11 of this application corresponds to patented claim 27. For the rational

given above for claim 6 this claim would have been obvious to one of ordinary skill in

the art.

Claim 12:

When comparing claim 12 of this application and patented claim 15 it is clear

applicant has broadened claim 12 with regard to patented claim 15. Patented claim 15

added to patented claim 12 the storing of information about a user's ability to perceive

color. Applicant is attempting to broaden the patented claim by deleting from the claim

other stored user preferences. Applicant is attempting to differentiate the claimed user

profile by claiming in this claim user profile information including information about a

user's ability to perceive color versus resolution. From the specification it is clear the

patented claim limitation of storing information about a user's ability to perceive color

covers the newly claimed limitation user profile information including information about a

user's ability to perceive color versus resolution. The claims in the pending application

may be used against the infringer of the patent's claim 15 (+all the limitations of claim 1)

because to perform infrigement of a comprising claim the accused infringer needs to at

least perform the recited claim limitations and may perform additional unclaimed

limitations. Thus, the grant of this claim without a terminal disclaimer will allow possible

harassment by multiple assignees. Also the claims of this application are broader than

the patented claim and in following the teaching in *In re Vogel*, 422 F.2d 438, 164

USPQ 619 (CCPA 1970) this broader claim is obvious type double patenting which may

be overcome by a terminal disclaimer. A comparison of claim 12 follows.

Claim 12 of this application 10/691,121	Claims 1+15 of US Patent 6,674,436
12. In a computer system including a processing unit and a display device,	1. In a computer system including a processing unit and a display device having a plurality of pixels,
wherein the perceived quality of an image displayed on the display device may be affected by a variety of factors including a user's ability to perceive the displayed image, and	wherein the perceived quality of an image displayed on the display device may be affected by a variety of factors including i) physical attributes of the display device, for example type of display device, white point, pixel pattern, and/or method of light modulation, and ii)
wherein the user's ability to perceive tends to vary from one user to another,	a user's ability to perceive the displayed image, for example human color sensitivity and/or viewing angle, and
	wherein the physical attributes tend to vary from one display device to another and the user's ability to perceive tends to vary front one user to another,
a method of increasing the perceived quality of a displayed image by compensating for the user's ability to perceive, the method comprising the steps for:	a method of increasing the perceived quality of a displayed image by compensating for at least one physical attribute of a display device and user profile information, the method comprising the steps for: storing information about the at least one physical attribute of said display device, wherein the step for storing the at least one physical attribute of said display

	device includes the act of storing display type information, the display type information indicating whether the display is a liquid crystal display, a cathode ray tube display or another type of display;
	storing user profile information about at least one user's ability to perceive a displayed image on said display device;
	using the stored physical attribute and user profile information to define at least one display device parameter;
	when processing a representation of an image to be displayed on said display device, using the display device parameter to alter the output of one or more pixels of said display device in order to increase the perceived quality of the resulting image when displayed on the display device; and
	displaying the processed image on said display device.
	15. The method of claim 1, further comprising the steps for:
storing user profile information about at least one user's ability to perceive a displayed image on said display device, the user profile information including information about a user's ability to perceive color versus resolution when performing scan conversion for each sub-component of a pixel; when processing a representation of an image to be displayed on said display device,	storing information about a user's ability to perceive color; and
performing a filtering operation on the data representing the image to be displayed using said stored information about a user's ability to perceive color versus resolution; and displaying the processed image on said display device.	performing a color filtering operation on the data representing the image to be displayed using said stored information about a user's ability to perceive color.

Claim 13:

This claim claims a method in accordance with claim 12, wherein the user profile

information further includes at least one of a user gamma value preference, a user

gamut value preference, and a user white point value preference. Patented claim 8

claims the display method of claim 1, wherein the step for storing information about at

least one physical attribute of said display device includes the act of: storing information

about a physical attribute of the display device from the group of attribute information

consisting of: gamma information, gamut information and white point information. Since

patented claim 8 depends upon claim 1 rather then patented claim 15 then there is a

difference in scope between pending claim 13 and patented claim 8. In view of

patented claim 8 it would have been obvious to one of ordinary skill in the art to add to

patented claim 15 patented claim 8 since this would have made for a more complete

user preference.

Claim 14:

This claim claims a method in accordance with claim 12, further comprising the

step for: periodically updating the stored user profile information. Patented claim 11

claims the method of claim 10, further comprising the step for: periodically updating said

stored attribute information. Since patented claim 11 depends upon claim 10 rather

then patented claim 15 then there is a difference in scope between pending claim 4 and

patented claim 11. In view of patented claim 11 it would have been obvious to one of

ordinary skill in the art to add to patented claim 15 patented claim 11 since this would

have made for a more complete user preference.

Claim 15:

This claim claims a method in accordance with claim 14, further comprising the

step for: using the display device to test the at least one user's ability to perceive, where

the step for periodically updating the stored user profile information is performed based

on the test. Patented claim 1 claims "ii) a user's ability to perceive the displayed image,

for example human color sensitivity and/or viewing angle" and "storing user profile

information about at least one user's ability to perceive a displayed image on said

display device". In view of patented claim 1 it would have been obvious to one of

ordinary skill in the art to test the user by using the display device in order to acquire the

stored user profile information about at least one user's ability to perceive a displayed

image on said display device since a test is necessary for the stored user profile to

exist.

Claim 16:

This claim claims a method in accordance with claim 12, further comprising the

step for: using the display device to test the at least one user's ability to perceive, where

the user profile information is based on the test. Patented claim 1 claims "ii) a user's

ability to perceive the displayed image, for example human color sensitivity and/or

viewing angle" and "storing user profile information about at least one user's ability to

perceive a displayed image on said display device". In view of patented claim 1 it would have been obvious to one of ordinary skill in the art to test the user by using the display device in order to acquire the stored user profile information about at least one user's ability to perceive a displayed image on said display device since a test is necessary for the stored user profile to exist.

Claim 17:

This claim claims a method in accordance with claim 12, wherein the user profile information further includes a user gamma value preference, wherein the step for processing a representation of an image further comprises the step for: performing a gamma value correction operation on the data representing the image to be displayed using the user gamma value preference information. Patented claim 14 claims the method of claim 1, further comprising the steps for: storing information about a user gamma value preference; and performing a gamma value correction operation on the data representing the image to be displayed using the stored user gamma value preference information. Since patented claim 14 depends upon claim 1 rather then patented claim 15 then there is a difference in scope between pending claim 17 and patented claim 14. In view of patented claim 14 it would have been obvious to one of ordinary skill in the art to add to patented claim 15 patented claim 14 since this would have made for a more complete user preference.

Claim 18:

Claim 18 of this application corresponds to patented claim 41. For the rational given above for claim 12 this claim would have been obvious to one of ordinary skill in the art.

Claim 19:

Claim 19 of this application corresponds to patented claim 41. For the rational given above for claim 9 this claim would have been obvious to one of ordinary skill in the art.

Claim 20:

Claim 20 of this application corresponds to patented claim 37. For the rational given above for claim 14 this claim would have been obvious to one of ordinary skill in the art in view of patented claim 37.

Claim 21:

Claim 21 of this application corresponds method claim to patented claim 27. For the rational given above for claim 9 this claim would have been obvious to one of ordinary skill in the art in view of patented claim 27

4.   Claim 12 and 18 are rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claims 1 and 9   of U.S.

Patent No. 6,624,428. The parent of this application and of patent 6,624,428 is the

same provisional application 60/118,087. Thus, the meaning of claim terms derived

from the specification will have the same meaning since they are from the same

ultimate parent application.   Although the conflicting claims are not identical, they are

not patentably distinct from each other. Claim 12 of this application is broader than

patented claim 1. The claims in the pending application may be used against the

infringer of the patent's claim 1 because to perform infringement of a comprising claim

the accused infringer needs to at least perform the recited claim limitations and may

perform additional unclaimed limitations. Thus, the grant of this claim without a terminal

disclaimer will allow possible harassment by multiple assignees. Also the claims of this

application are broader than the patented claim and in following the teaching in *In re*

Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970) this broader claim is obvious type

double patenting which may be overcome by a terminal disclaimer. A comparison of

claim 12 follows.

Claim 12 of this application 10/691,121	Claim 1 of US Patent 6,624,828
12. In a computer system including a processing unit and a display device, wherein the perceived quality of an image displayed on the display device may be	1. In a computing system having a display device that has a plurality of pixels, each pixel having a plurality of pixel sub-components of different colors that may each be treated as independent luminous intensity sources,

affected by a variety of factors including a user's ability to perceive the displayed image, and	a method for displaying an image on the display device in a manner that balances a particular user's perception of color and resolution, the method comprising the following:
wherein the user's ability to perceive tends to vary from one user to another, a method of increasing the perceived quality of a displayed image by compensating for the user's ability to perceive, the method comprising the steps for: storing user profile information about at least one user's ability to perceive a displayed image on said display device, the user profile information including information about a user's ability to perceive color versus resolution when performing scan conversion for each sub-component of a pixel;	an act of measuring a specific user's preferred balance between color correction and resolution when viewing images on a display device in which pixel sub-components may be treated as independent luminous intensity sources;
when processing a representation of an image to be displayed on said display device, performing a filtering operation on the data representing the image to be displayed using said stored information about a user's ability to perceive color versus resolution; and	an act of accessing an image that is digitally represented by multiple values each representing a unique sample point that corresponds to a pixel sub-component of the display device; an act of performing color compensation on the digital representation of the image such that the extent of color compensation depends on the specific user's measured preferred balance; and
displaying the processed image on said display device.	an act of displaying the color compensated image on the display device.

Claim 18:

Claim 18 of this application corresponds to patented claim 9. For the rational given

above for claim 12 this claim would have been obvious to one of ordinary skill in the art.

Prior Art

5.   The patents cited on the parent patent, 6,674,436, have been considered by

viewing them in EAST. The articles were not considered because they are not present

in the paper file of parent application serial no. 09/364,649 and they are not readily

available to the Examiner. If applicant wishes to have those references considered,

these references will need to be provided by applicant for this application.

6.   Becker, U.S. Patent No. 6,192,341, teaches determining the visual ability of the

user to perceive a displayed image at column 5 line 59 to column 7 line 35 and storing

the results of the visual test (steps 164, 166 and 170).

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jeffery A Brier whose telephone number is (571) 272-

7656. The examiner can normally be reached on M-F from 7:00 to 3:30. If attempts to

reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael

Razavi, can be reached at (571) 272-7664. The fax phone Number for the organization

where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for
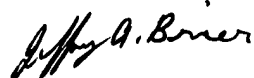
published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Jeffery A Brier
Primary Examiner
Art Unit 2672